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United States Patent [19]**Ramotowski et al.**[11] **Patent Number:** **5,606,329**[45] **Date of Patent:** **Feb. 25, 1997**[54] **BUOYANT CABLE ANTENNA**[75] **Inventors:** **Thomas S. Ramotowski**, East Lyme;
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represented by the Secretary of the
Navy**, Washington, D.C.[21] **Appl. No.:** **605,779**[22] **Filed:** **Feb. 22, 1996**[51] **Int. Cl.⁶** **H01Q 1/34; B22C 1/22;
B29C 39/26**[52] **U.S. Cl.** **343/709; 164/6; 164/21;
164/526; 164/527; 264/272.11; 264/DIG. 6**[58] **Field of Search** **343/709; 164/6,
164/21, 526, 527; 264/272.11, DIG. 6**[56] **References Cited****U.S. PATENT DOCUMENTS**

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3,972,047 7/1976 Lombardi 343/709**Primary Examiner**—Hoa Van Le**Attorney, Agent, or Firm**—Michael J. McGowan; Michael F.
Oglo; Prithvi C. Lall[57] **ABSTRACT**

A submarine buoyant cable antenna having positive buoyancy comprising a communications antenna electronics package encased in a polymer composition, the polymer composition comprising from about 80 percent to about 85 percent by weight of a room temperature curable thermosetting polymer having a viscosity, before curing, in the range of from about 700 to about 900 centipoise, and from about 15 percent to about 20 percent by weight of microballoons of a size ranging from about 20 to about 100 microns in diameter, the specific gravity of the composition being in the range of from about 0.51 to about 0.65 grams per cubic centimeter to provide the positive buoyancy.

19 Claims, No Drawings